a modern quipu (his orthography is *Kipu*) from Bolivia. This one is not the same which he described in the *Ethnologisches Notizblatt*, of Berlin (referred to at that time in these notes). He obtained it from a native on a hacienda near Lake Titicaca, and its purpose was to keep the tally of the sheep, rams, ewes and lambs entrusted to his care. Others are used for reckoning the harvest and rendering accounts of various kinds. These are usually white in color only, and the count is registered by knots. Quipus of various colors are probably still in use, though Dr. Uhle was unable to secure specimens. He discusses four ancient and modern authorities on the significance of the hues, and believes that by further research we shall be able to extend our knowledge greatly of this curious method of recording facts.

ETRUSCAN STUDIES.

A WRITER somewhat well known for his archæological essays, Guiseppe Fregni, published last year a study of some of the leading Etruscan inscriptions, with what he alleges are translations (Delle più celebri Iscrizione Etrusche, p. 155, Modena, 1897). It is well illustrated and presents with care copies of eight or nine of the longer inscriptions and a discussion of the alphabet and its variants.

To the learned author the Etruscan problem is child's play in the simplicity of its solution. He allows himself humorous flings at the erudite obtuseness of previous students. All you have to do is to read the inscriptions in any or all of the Italic dialects, taking the words now in one, now in other, and, if they don't fit, cutting them up or expanding them, to make them fit, and calling in the Greek or Phœnician when the Italic dialects are wholly refractory. To be sure, they could be read, according to this method, just as well in English or Dutch or Choctaw; but this objection the author does not take into consideration. He presents complete and fluent renderings of all of them.

THE HUICHOLA TRIBE.

AN interesting collection of ethnographic objects has been brought by Dr. Carl Lumholtz from the Huichola Indians. They dwell in an extremely mountainous part of western central Mexico, and are rarely visited by white men. They are pagans, though retaining some faint traces of the Christianity taught them in the last century by the Jesuits and Franciscans. Much of their ritual is occupied with 'rain-making,' and their symbolism is markedly aboriginal in spirit. The sacred plant *peyotl*, so common in the native rites throughout Mexico, and prized for the intoxication it produces, is held in high esteem among them.

The Huichola language has generally been considered a dialect of the Uto-Aztecan stock, and perhaps in them we may recognize some of the ancient 'Chichimecs.' Dr. Lumholtz has published some account of his researches in the last number of the *Bulletin* of the American Museum of Natural History.

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*NOTES ON INORGANIC CHEMISTRY.*

SATISFACTORY reductions in blowpipe analysis are often attended with more or less difficulty, as, for example, the reduction of tin oxid or barium sulfate. In the last *Zeitschrift für anorganische Chemie* a new method is proposed by Professor Walther Hempel, which he claims obviates many difficulties. A very small piece of metallic sodium is flattened out on a small piece of filter paper, and the substance to be examined is rolled up in this and wound with a close spiral of finest iron wire. After the excess of paper is cut off, the roll is slowly burned in the interior of a Bunsen flame and cooled in the stream of gas close

to the top of the burner. The product is then treated with a little water in an agate mortar, when the caustic soda formed is quickly dissolved and any metal present is left, generally in quantity large enough for easy examination. Sulfur and other substances are very readily detected in the solution. In case of silicates and borates the silicon or boron is left in the elementary state and easily recognized. In case it is desired to examine the constituents of the substances with the spectroscope, aluminum or magnesium filings are substituted for the sodium. The reaction is violent, but in small quantities unattended by danger. If it is desired to use larger quantities the substance must be diluted with an indifferent body, as salt when sodium is used, magnesium oxid with magnesium and aluminum oxid with aluminum. In this way considerable quantities may be used in a small iron crucible, and thus silicates decomposed in a few seconds. With care the process is even available for quantitative work.

In the course of an investigation on the analysis of illuminating gas, Messrs. Harbeck and Lunge have discovered the existence of a stable compound of carbon monoxid with platinum and also with palladium. These are formed by leading carbon monoxid over the metal in a finely divided state. The metals are not completely converted into the carbonyl, hence their composition is as yet unknown, but they present an analogy to the volatile carbonyls of nickel and of iron. They have no catalytic power of causing the combination of gases, and their formation explains why the presence of carbon monoxid prevents the catalytic action of platinum and palladium. As it is well known that certain other gases also prevent this catalytic action, investigation will now be needed to see if they too form similar compounds.

In a paper read before the Chemical Society (London), Messrs. Lean and Whatmough discuss the preparation of pure iodin. It is well known that iodin is very difficult to prepare free from bromin and chlorin. The authors find that cuprous iodid can readily be prepared free from these elements, and by heating it in a stream of dry air at 220°–240° most of the iodin is expelled and can be condensed upon a cold surface. This pure iodin has a black vapor and not the usual deep violet, thus confirming the statement of Stas that the vapor of pure iodin is opaque. Further, it emits no visible vapor at ordinary temperatures.

J. L. H.

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*SCIENTIFIC NOTES AND NEWS.*

The Senate confirmed, on February 14th, President McKinley's appointment of Mr. George M. Bowers as Fish Commissioner.

The Prince of Wales has consented to act as patron of the coming International Congress of Zoology.

Professor Agassiz arrived in San Francisco on February 13th on the steamship *Australian* from Honolulu, returning from his investigations of the formation of coral islands.

Professor Luigi Cremona, who holds the chair of mathematics in the University of Rome, has been elected a correspondent of the Paris Academy of Sciences.

The Senate of Glasgow University has appointed Professor Michael Foster, secretary of the Royal Society and professor of physiology in Cambridge University, to be Gifford lecturer in the Glasgow University in succession to Professor Bruce.

Dr. Nansen is now giving lectures in Great Britain, and will next month lecture in St. Petersburg and Vienna. He then expects to return home and devote himself to studying the specimens collected and the observations made during his expedition.

The Cameron prize of the University of Edinburgh has been awarded to Professor T. R. Frazer for his researches in practical therapeutics.